INDEX

Acetylcholine esterase, human fetus and, 473
Activity, gastric, 274
  neuron, 438
  spontaneous in rat, 191
Alpha rhythm, 51
Anatomy, functional, of brachium pontis, 196
ANDERSON, R., LIVINGSTON, W. S., and DOW, R. S., Effect of chronic painful lesions in dorsal root reflexes in the dog, 427
Anesthesia, nembutal, 25
Area 4, suppression of motor response, 311
Area 4s, stimulation of, 311
ARNETT, V., and WILDE, W. S., Potassium and water changes in excised nerve on stimulation, 572

BAILEY, P., GAROL, H. W., and MCCULLOCH, W. S. Cortical origin and distribution of corpus callosum and anterior commissure in chimpanzee, 564
BARD, P., See MARSHALL, W. H., 1
BEACH, F. A., Effects of lesions to corpus striatum upon spontaneous activity in the male rat, 191
BEATON, L. E., MCKINLEY, W. A., BERRY, C. M., and RANSON, S. W. Localization of cerebral center activating heat-loss mechanisms in monkeys, 478
BENDER, M. B., See WEINSTEIN, E. A., 44
BERRY, C. M., See BEATON, L. E., 478
Blood flow, cerebral, 333
BODIAN, D., See TOWER, S., 388, 398
BOWMAN, K. M., See WORTIS, J., 243
Brachium pontis, functional anatomy, 196
Brain oxidations, 243
BRÜCKE, E. T. von, and EARLY, M., On the alleged synchronization of proprioceptive impulses within spinal ganglia, 507
——, ——, and FORBES, A. Recovery of responsiveness in motor and sensory fibers during the relative refractory period, 80
——, ——, ——, Fatigue and refractoriness in nerve, 456
  (Obituary), 331
Bulbospinal correlation system, 115

Cat, cortical somatic sensory mechanism, 1
  pyramidal system, 525
  spinal mechanism, 525
  subcortical somatic sensory mechanism, 25
Cerebral center, heat-loss mechanism, 478
Chimpanzee, corpus callosum, 564
  "motor" cortex, 287
Choline esterase, concentration, 348
CLOUGH, G. H., See DENSLOW, J. S., 430
Convulsions, cortical extinction in, 250
Corpus callosum, chimpanzee, 564
  monkey, 555
Corpus striatum, effect of lesion, 191
Cortex, "motor," 287
  thermocoagulation, 147
  sensory, and thalamus, 304
    functional organization, 324
Cortical discharge, blood flow, 333
  pH, 333

DAVIS, P. A., Technique and evaluation of the electroencephalogram, 92
Denervation, relation to skeletal muscle, 398
DENSLOW, J. S., and CLOUGH, G. H., Reflex activity in the spinal extensors, 430
Dog, chronic lesions and dorsal root reflexes, 427
DOW, R. S., See ANDERSON, R., 427
DUSSER DE BARENNE, J. G., GAROL, H. W., and MCCULLOCH, W. S. The "motor" cortex of the chimpanzee, 287
——, ——, ——, Functional organization of sensory and adjacent cortex of the monkey, 324
——, and MCCULLOCH, W. S. Functional interdependence of sensory cortex and thalamus, 304
——, ——, Suppression of motor response obtained from area 4 by stimulation of area 4s, 311
  See MURPHY, J. P., 147

EARLY, M., See BRÜCKE, E. T., von, 80, 456, 507
ECCLES, J. C., KATZ, B., and KUFFLER, S. W., Nature of the "endplate potential" in curarized muscle, 362
——, ——, Initiation of muscle impulses at neuro-muscular junction, 402
——, and KUFFLER, S. W., The endplate potential during and after the muscle spike potential, 486
Electrical changes, nerve activity, 348
Electro-corticogram, 418
Electroencephalogram, evaluation, 92
  technique, 92
Endplate potential, 362, 486
ERICKSON, T. C., See JASPER, H., 333
Extinction, cortical, in convulsions, 250

Fatigue, 457
FAZEKAS, J. F., see WORTIS, J., 243
Fetus, human, and acetylcholine esterase, 473

Fibers, fast central, 224
motor, recovery of responsiveness, 80
sensory, recovery of responsiveness, 80
Fish, fast central fibers, 224
Flicker potentials, 51
FORBES, A., See BRÜCKE, E. T., von, 80, 456
FOUNTAIN, G., Jr., See KENNARD, M. A., 512
Frog, multiple motor innervation, 209
reflexes, swimming and righting, 137

Ganglia, spinal, 507
GAROL, H. W., See BAILEY, P., 564
See DUSSER DE BARENNE, J. G., 287, 324
See MCCULLOCH, W. S., 555
Gastric activity, 274
GEOHEGAN, W. A., See HARE, K., 266
GERARD, R. W., See LIBET, B., 438
GERMAN, W. J., See TURNER, R. S., 196
GOLDFARB, W., See WORTIS, J., 243
GRAHAM, H. T., and O'LEARY, J. L., Fast central fibers in fish, 224

HARE, K., and GEOHEGAN, W. A., Influence of frequency of stimulus upon response to hypothalamic stimulation, 266
HESSER, F. H., LANGWORTHY, O. R., and KOLB, L. C., Experimental study of gastric activity released from cortical control, 274
HIMWICH, H. E., See WORTIS, J., 243
HOWE, H., See TOWER, S., 388, 398
HUGHES, J., See MCCOUCH, G. H., 547
Hyperactivity, after frontal lesions, 512

Impulses, dromically conducted, 184
proprioceptive in spinal ganglia, 507
Inactivation, relation to skeletal muscle, 398
Inhibition, crossed and flexor reflex, 547
Inhibitory action, 184

JASPER, H., and ERICKSON, T. C., Cerebral blood flow and pH in excessive cortical discharge induced by metrazol and electrical stimulation, 333

KATZ, B., and KUFFLER, S. W., Multiple motor innervation of the frog's sartorius muscle, 209
See ECCLES, J. C., 362
KENNARD, M. A., SPENCER, S., and FOUNTAIN, G., Jr., Hyperactivity in monkeys following lesions of the frontal lobes, 512
KOLB, L. C., See HESSER, F. H., 274
KUFFLER, S. W., See ECCLES, J. C., 362, 402, 486
See KATZ, B., 209

Lactic acid, in brain oxidation, 243
LANGWORTHY, O. R., See HESSER, F. H., 274
Lesions, chronic, effect on dorsal root reflexes, 427
frontal lobe in monkeys, 512
to corpus striatum, 191
LIBET, B., and GERARD, R. W. Steady potential fields and neurone activity, 438
LIVINGSTON, W. S., See ANDERSON, R., 427
LLOYD, D. P. C., Activity in neurons of the bulbospinal correlation system, 115
A direct central inhibitory action of dromically conducted impulses, 184
The spinal mechanism of the pyramidal system in cats, 525
Lobotomy, prefrontal, 62
LU, T.-W., See WANG, G.-H., 137
LYERLY, J. G., See WORCHEL, P., 62

MCCOUCH, G. P., HUGHES, J., and STEWART, W. B., Crossed inhibition of the flexor reflex in the spinal mammal, 547
MCCULLOCH, W. S., and GAROL, H. W., Cortical origin and distribution of corpus callosum and anterior commissure in the monkey, 555
See BAILEY, P., 564
See DUSSER DE BARENNE, J. G., 287, 304, 311, 324
MCKINLEY, W. A., See BEATON, L. E., 478
MARRAZZI, A. S., See SHEEHAN, D., 68
MARSHALL, W. H., Observation on subcortical somatic sensory mechanism of cats under nembutal anesthesia, 25
——, WOOLSEY, C. N., and BARD, P., Observations on cortical somatic sensory mechanisms of cat and monkey, 1
Mechanism, heat-loss, in monkey, 478
intrinsic, of spinal cord, 388
motor, of spinal cord, 388
spinal, of pyramidal system, 525
Metrazol, induction of blood flow, 333
MEYERHOF, B., See NACHMANSOHN, D., 348
MEYERS, R., Cortical extinction in convulsions, 250
Monkey, corpus callosum, 555
cortical somatic sensory mechanism, 1
frontal lesion, 512
heat-loss mechanism, 478
hyperactivity, 512
organization of sensory cortex, 324
sympathetic outflow to limbs, 68
Motoneurons, discharge, 167
excitation, 167
Motor innervation, multiple, 209
MURPHY, J. P., and DUSSER DE BARENNE, J. G., Thermocoagulation of motor cortex exclusive of its sixth layer, 147

Muscle, curarized, 362
impulses, initiation, 402
skeletal, fibrillation, 398
spike potential, 486

NACHMANSOHN, D., and MEYERHOF, B., Relation between electrical changes during nerve activity and concentration of choline esterase, 348
Nerve, activity, 348
potassium changes in, 572
refractoriness and fatigue, 456
water changes in, 572
Neuro-muscular junction, 402
Neurons, activity, 115, 438
Nucleus, Burdach, impulses through, 153

O'LEARY, J. L., See GRAHAM, H. T., 224

Patients, depressed, 62
pH in cortical discharge, 333
Potassium changes in excised nerve, 572
Proprioceptive impulses, synchronization, 507
Pupillodilator reactions, 44
Pyramidal system, spinal mechanism, 525

RAHM, W. E., Jr., See SCARFF, J. E., 418
RANSON, S. W., See BEATON, L. E., 478
Rat, corpus striatum lesions, 191
spontaneous activity, 191
Reflexes, dorsal root, effect of lesion, 427
flexor, crossed inhibition, righting in frog, 137
spinal extensor, 430
swimming in frog, 137
Refractory period, recovery of responsiveness during, 80
RENSHAW, B., Influence of discharge of motoneurons upon excitation of neighboring motoneurons, 167
Response, motor, suppression, 311
to hypothalamic stimulation, 266
Responsiveness, recovery, 80

SCARFF, J. E., and RAHM, W. E., Jr., The human electro-corticogram, 418
Sensory mechanisms, cortical somatic, 1
subcortical, 25
SHEEHAN, D., and MARRAZZI, A. S., Sympathetic preganglionic outflow to limbs of monkeys, 68
SPENCER, S., See KENNARD, M. A., 512
Spinal cord, monkey, 388
mammal, crossed inhibition, 547
flexor reflex, 547
STEWART, W. B., See MCCOUCH, G. P., 547
Stimulation, diencephalic, 44
electrical, induction of blood flow, 333
hypothalamic, 266
sciatic, 44
Stimulus, frequency of, from hypothalamus, 266
Sympathetic outflow, preganglionic, 68
Synchronization, proprioceptive impulses, 507

Thalamus, and sensory cortex, 304
THERMAN, P. O., Transmission of impulses through the Burdach nucleus, 153
Thermocoagulation of motor cortex, 147
TOMAN, J., Flicker potentials and the alpha rhythm in man, 51
TOWER, S., BODIAN, D., and HOWE, H., Isolation of intrinsic and motor mechanism of the monkey's spinal cord, 388
——, HOWE, H., and BODIAN, D., Fibrillation in skeletal muscle in relation to denervation and to inactivation without denervation, 398
TURNER, R. S., and GERMAN, W. J., Functional anatomy of brachium pontis, 196

WANG, G.-H., and LU, T.-W., Development of swimming and righting reflexes in frog, 137
Water changes in excised nerve, 572
WEINSTEIN, E. A., and BENDER, M. B., Pupillodilator reactions to sciatic and diencepahlic stimulation, 44
WILDE, W. S., See ARNETT, V., 572
WOOLSEY, C. N., See MARSHALL, W. H., 1
WORCHEL, P., and LYERLY, J. G., Effects of prefrontal lobotomy on depressed patients, 62
WORTIS, J., BOWMAN, K. M., GOLDFARB, W., FAZEKAS, J. F., and HIMWICH, H. E., Availability of lactic acid for brain oxidations, 243

YOUNGSTROM, K. A., Acetylcholine esterase concentration during the development of the human fetus, 473